

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): An authentication system comprising a server system communicably connected to in which a communication terminal ~~is communicably connected to a server system~~ via a communication network means, wherein an authenticated result for a user who handles the communication ~~communicational~~ terminal to access data stored in ~~is made reference to provide data from the server system to the communication terminal~~ via the communication network means, the server system comprising:

 a first authentication unit configured to receive user-identifying information from the communication terminal via the communication network, authenticate the user-identifying information ~~transmitted from the communication terminal~~, and generate first key information based on the authenticated user-identifying information ~~so that~~ the first key information is being ~~transmitted from the server system to the communication terminal~~ to the user;

 a second authentication unit configured to receive the first key information from the communication terminal via the communication network, to authenticate the first key information ~~transmitted from the communication terminal~~, and generate second key information ~~to access the data~~ based on the first key information, the second key information entitling the user to repeatedly access the data in the server system for a specified period of time as long as the communication terminal is activated and ~~so that~~ the second key information is being ~~transmitted from the server system to the communication terminal via the communication network~~; and

 an access permitting unit configured to receive the second key information from the communication terminal via the communication network and to permit the user to access the data in the server system to be accessed within a for the specified predetermined period of time every

~~time the user accesses the server system the access being carried out on the basis of the second key information transmitted from the communication terminal.~~

Claim 2 (Currently Amended): The authentication system according to claim 1, further comprising a second server system which is connected to the communication network and different from the server system generating the second key information,

wherein the second server system comprises a third authentication unit configured to authenticate validity of the second key information ~~generated the server system~~.

Claim 3 (Currently Amended): The authentication system according to claim 2 [[1]], wherein the second server system is configured to set a period of time to permit the user to access to the data on the basis of both of a time instant at which the second key information is generated ~~acquired~~ and a ~~an accessible period of~~ time remaining in the specified ~~predetermined~~ period of time set for the access to be carried out using the second key information.

Claim 4 (Currently Amended): A server system for use in an authentication system and which is communicably connected with a communication terminal via a communication network means, wherein ~~an authenticated result for a user handles the communication~~ communication terminal to access data stored in is made reference to provide data from the server system ~~to the communication terminal~~ via the communication network means, the server system comprising:

a first authentication unit configured to receive user-identifying information from the communication terminal via the communication network, authenticate the user-identifying information ~~transmitted from the communication terminal~~, and generate first key information based on the authenticated user-identifying information, ~~so that~~ the first key information being is ~~transmitted from the server system to the communication terminal to the user;~~

a second authentication unit configured to receive the first key information from the communication terminal via the communication network, authenticate the first key information, ~~transmitted from the communication terminal~~ and generate second key information ~~to access the data based on the first key information,~~ the second key information entitling the user to

~~repeatedly access the data in the server system for a specified period of time as long as the communication terminal is activated and so that the second key information being so transmitted from the server system to the communication terminal via the communication network; and~~

~~an access permitting unit configured to receive the second key information from the communication terminal via the communication network and to permit the user to access the data in the server system to be accessed within a for the specified predetermined period of time every time the user accesses the server system the access being carried out on the basis of the second key information transmitted from the communication terminal.~~

Claim 5 (Currently Amended): The server system according to claim 4, wherein the first key information is an access key for accessing to access to the data stored in the server system to acquire the second key information and the second key is a ~~session~~ session key for accessing the data in the server system and requesting transmission control of the data.

Claim 6 (Currently Amended): The server system according to claim 4, in cases where the user-identifying information is transmitted using a second communication terminal other than the communication terminal handled by the user, the first authentication unit transmits, to the second communication terminal, a second access key generated based on the user-identifying information provided from the second communication terminal, the second access key being regarded as being the same as the previously-generated access key.

Claim 7 (Currently Amended): The server system according to claim 4, wherein the communication terminal is configured to provide ~~previously have predetermined~~ terminal-identifying information ~~being sent to the server system together with the user-identifying information, wherein the terminal-identifying information is used for the authentication by the first authentication unit.~~

Claim 8 (Currently Amended): An authentication method[[],] carried out by a server system communicably connected to in which a communication terminal ~~is communicably connected to a server system~~ via a communication network means, wherein ~~an authenticated~~

result for a user who handles the communication ~~communication~~ terminal to have access to is made reference to provide data stored in from the server system to the ~~communication~~ terminal via the communication network means, the method comprising steps of:

receiving user-identifying information transmitted from the communication terminal via the communication network;

authenticating the received user-identifying information ~~transmitted from the communication terminal;~~

generating, only once, first key information based on the authenticated user-identifying information;

transmitting so that the first key information is transmitted from the server system to the communication terminal;

receiving the first key information from the communication terminal via the communication network;

authenticating the received first key information ~~transmitted from the communication terminal;~~

generating second key information to access the data based on the first key information, the second key information entitling the user to periodically access the data in the server system for a specified period of time as long as the communication terminal is activated;

transmitting so that the second key information is transmitted from the server system to the communication terminal via the communication network; and

receiving the second key information from the communication terminal via the communication network; and

permitting the user to access the data in the server system for the specified to be accessed within a predetermined period of time every time the user accesses the server system ~~the access being carried out on the basis of the second key information transmitted from the communication terminal.~~

Claim 9 (Currently Amended): The authentication method according to claim 8, wherein the first key information is an access key for accessing ~~to access to the data stored in the~~

server system to acquire the second key information and the second key is a session key for accessing the data in the server system and requesting transmission ~~control~~ of the data.

Claim 10 (Canceled).

Claim 11 (Currently Amended): The authentication method according to claim 8, wherein the communication terminal provides ~~previously has predetermined~~ terminal-identifying information ~~being sent~~ to the server system together with the user-identifying information, wherein the authenticating of the user-identifying information uses the terminal-identifying information.

Claim 12 (Currently Amended): The authentication method according to claim 8, further comprising ~~the step of authenticating~~ validity of the second key information generated the server system.

Claim 13 (Currently Amended): The authentication method according to claim 8, wherein the generating of the second-key information ~~generating step~~ includes the step of setting a period of time to permit the user to the access to the data in the server system on the basis of both of a time instant at which the second key information is generated ~~acquired~~ and a an ~~accessible period of time remaining in the specified predetermined period of time set~~ for the access to be carried out using the second key information.

Claim 14 (Canceled).

Claim 15 (Currently Amended): A computer program product comprising a computer readable recording medium having storing thereon a computer-readable program code embodied thereon, the program code, when executed, being adapted to carry out the method of claim 8 installed in a server system communicably connected with a communication terminal via communication means, wherein an authenticated result for a user who handles the communication terminal is made reference to provide data from the server system to the

communication terminal via the communication means, the program makes a computer realize the functions of:

first authentication means for authenticating user identifying information transmitted from the communication terminal and generate first key information based on the user identifying information so that the first key information is transmitted from the server system to the communication terminal;

second authentication means for authenticating the first key information transmitted from the communication terminal and generate second key information to access the data based on the first key information so that the second key information is transmitted from the server system to the communication terminal; and

access permitting means for permitting the data to be accessed within a predetermined period of time, the access being carried out on the basis of the second key information transmitted from the communication terminal.

Claim 16 (New): An authentication method for authenticating a user terminal requesting access to data stored in a server system, the method comprising:

- receiving secured user information from a user of the user terminal;
- authenticating the received user information;
- generating an access key based on the authenticated user information;
- transmitting the access key to the user;
- receiving the access key from the user terminal via a communication network at a time of a first request for accessing the data stored in the server system;
- authenticating the access key received from the user terminal;
- generating a session key based on the access key received from the user terminal;
- transmitting the session key to the user terminal via the communication network;
- receiving the session key from the user terminal via the communication network;
- permitting the user terminal to access the data in the server system if the session key is received within some period of time subsequent to the transmitting of the session key to the user terminal via the communication network; and

transmitting additional session keys to the user terminal via the communication network in response to receiving the same access key from the user terminal via the communication network at times of additional requests for accessing the data stored in the server system subsequent to the time of the first request.

Claim 17 (New): The method according to claim 16, wherein the secured user information is not received again at the subsequent times of the additional requests for accessing the data.

Claim 18 (New): The method according to claim 16, wherein the secured user information is secured using a secure sockets layer protocol.

Claim 19 (New): The method according to claim 16, further comprising:
receiving the same access key from at least one other, different user terminal;
generating a session key based on the access key;
transmitting the session key to the other user terminal via the communication network;
receiving the session key from the other user terminal via the communication network;
and
permitting the other user terminal to access the data in the server system if the session key is received within some period of time subsequent to the transmitting of the session key to the other user terminal via the communication network.

Claim 20 (New): The method according to claim 16, further comprising:
generating at least one other access key based on the authenticated user information;
transmitting the other access key to at least one other different user terminal;
receiving the access key from the other user terminal via the communication network at a time of a first request for accessing the data stored in the server system;
authenticating the access key received from the other user terminal;
generating a session key based on the access key received from the other user terminal;
transmitting the session key to the other user terminal via the communication network;

receiving the session key from the other user terminal via the communication network;
and

permitting the other user terminal to access the data in the server system if the session key is received within some period of time subsequent to the transmitting of the session key to the other user terminal via the communication network.

Claim 21 (New): The method according to claim 16, further comprising:
receiving a hardware identifier transmitted from the user terminal over a communication network,
wherein the authenticating is based on both the secured user information and the hardware identifier.